

REMARKS

Administrative Overview

Prior to entry of the present Amendment, claims 24–48 were pending in this application. The Office action, dated July 2, 2004, rejects claims 24–48 under the judicially created doctrine of obviousness-type double patenting over claims 1–23 of U.S. Patent No. 6,385,484 to Costa et al. (Costa). The Office action further rejects claims 24–48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,069,689 to Zeng et al. (Zeng) and U.S. Patent No. 6,258,576 to Richards-Kortum et al. (Richards-Kortum).

Applicants amend claims 24, 26, 30–32, 36, 38, 40, 42, 46, and 48, and cancel without prejudice claims 25, 35, 39, and 45. Support for the amendments may be found in the abstract, specification, claims, and drawings, at least on page 4, lines 6–8 of the specification and in original claim 13.

Applicants submit that no new matter has been added by any of these amendments. Following entry of the present Amendment, claims 24, 26–34, 36–38, 40–44, and 46–48 are pending in this application.

Request to Hold Obviousness-Type Double Patenting Rejection of Claims 24–48 in Abeyance

Applicants respectfully request that the obviousness-type double-patenting rejections of claims 24, 26–34, 36–38, 40–44, and 46–48 over claims 1–23 of Costa be held in abeyance until all the claims are deemed otherwise allowable. Applicants will address any obviousness-type double-patenting rejections should it become necessary.

The Combination of Zeng and Richards-Kortum is not Suggested by the Cited Art

Claims 24 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zeng in view of Richards-Kortum. Zeng is not directed to a method of determining a condition of cervical tissue. For example, page 4, second paragraph, of the Office action states:

With respect to claims 24-48 Zeng et al. reference does *not* teach the system and method of optically diagnosing a tissue specimen(s) (in vitro diagnosis), said tissue specimen comprising human *cervical tissue*, said cervical diagnosis comprising one of the conditions of normal squamous tissue, metaplasia, CIN I, and CIN II/III, and said additional optical information comprising a video and/or optical image [emphasis added].

Applicants amend claims 24 and 48 to include the limitation of determining a condition of cervical tissue. Support for this amendment may be found in the specification at least on page 4, lines 6-8. With regard to optical diagnosis of cervical tissue, the Office action at pages 4 and 5 states:

Richards-Kortum et al. teaches an optical diagnosis method and apparatus for cervical squamous intraepithelial lesions in vitro and in vivo using fluorescence and Raman spectroscopy. ... With respect to claims 26, 36, 40, and 46, it is obvious to one of ordinary skill in the art to provide for the system and method of Zeng et al. to diagnose human cervical tissue because optical analysis has the potential to improve the accuracy and efficacy of cervical pre-cancer screening and diagnosis as taught in Richards-Kortum et al., column 2 lines 13-26 [emphasis added].

However, Richards-Kortum discusses “optical analysis” only with regard to fluorescence spectroscopy, not reflectance spectroscopy, as recited in claims 24 and 48. Richards-Kortum, column 2, lines 13-26, reads as follows:

Fluorescence spectroscopy is a technique that has the potential to improve the accuracy and efficacy of cervical pre-cancer screening and diagnosis [emphasis added].

Applicants respectfully submit that the combination of Zeng with Richards-Kortum is not suggested in the cited art. Richards-Kortum does not disclose obtaining or processing reflectance spectral data to determine a condition of cervical tissue, as recited in claims 24 and 48. It has not been shown that it would be obvious to one of ordinary skill in the art to combine the skin disease diagnostics of Zeng with the cervical lesion detection methods of Richards-Kortum. Skin tissue is different from cervical tissue, and it is not obvious to use methods of diagnosing skin disease (Zeng) to detect cervical lesions (Richards-Kortum).

Since fewer than all the limitations of claims 24 and 48 as currently amended are taught or suggested by the cited art, Applicants respectfully request that the rejection of claims 24 and 48 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Claim 38 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zeng in view of Richards-Kortum. Applicants amend claim 38 to include the limitation that the recited system determines the condition of a cervical tissue. Support for this amendment may be found in the specification at least in original claim 14. As in the discussion above with respect to claims 24 and 48, since fewer than all the limitations of claim 38 as currently amended are taught or suggested by the cited art, Applicants respectfully request that the rejection of claim 38 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Dependent Claims 26–34, 36, 37, 40–44, 46, and 47 are Each Patentable Over the Cited Art

Dependent claims 26–34, 36, 37, 40–44, 46, and 47 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zeng in view of Richards-Kortum. Because claims 26–34, 36, and 37 depend (directly or indirectly) from claim 24, they include all the limitations of claim 24 and are patentable over the cited art. In addition, because claims 40–44, 46, and 47 depend (directly or indirectly) from claim 38, they include all the limitations of claim 38 and are also

patentable over the cited art. Applicants respectfully request reconsideration and withdrawal of the rejection of these claims.

Additionally, with respect to dependent claims 33, 34, 43, and 44, the Office action states on page 5:

Richards-Kortum et al. teaches that tissue classification may be displayed as the image of the cervix with the different tissue types displayed as different colors. This color display satisfies both limitations to video information and an optical image.

Applicants respectfully disagree that the Richards-Kortum color display satisfies the claim limitations to video information and an optical image. Richards-Kortum describes displaying a tissue classification after it has already been determined, but does not teach using video information and/or an optical image to optically determine the classification, as in claims 33, 34, 43, and 44. Therefore, on this basis as well, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 33, 34, 43, and 44.

Conclusion

Applicants request that the Examiner reconsider the Application and claims in light of the foregoing Amendment and Response. Applicants respectfully submit that in view of the amendments and remarks herein, claims 24, 26-34, 36-38, 40-44, and 46-48 are in condition for allowance. Applicants, therefore, respectfully request issuance of a Notice of Allowance in due course.

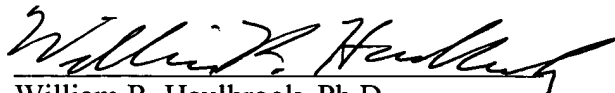
If the Examiner believes that it would be helpful to discuss any aspect of the application by telephone, the undersigned representative cordially invites the Examiner to call at the telephone number given below.

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Respectfully submitted,



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